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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MONIKANG, GEORGE C	

ART UNIT	PAPER NUMBER
2614	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/789,425	PETROFF, MICHAEL L.	
	Examiner	Art Unit	
	GEORGE C. MONIKANG	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 August 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/13/2009 have been fully considered but they are not persuasive.

1. Regarding applicant's argument that the AAPA does not disclose incrementally increasing and decreasing the gain adjustments, the examiner maintains his stand. The term **incremental** is rather broad thus the varying changes of the gain in regards to noise of AAPA (*AAPA, fig. 1; para 0006: varying changes of amplitude due to ambient noise level is incremental*) could incrementally change the amplitude based on the amount of surrounding noise level. Essentially, the adjustment of the gain depends on the ambient noise, therefore, if, the ambient noise has a widely varying change, so will the gain adjustment and if the ambient noise has an incremental change, so will the gain adjustment.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1, 7, 12, 18, 22 & 25 are rejected under 35 U.S.C. 102(b) as being anticipated by applicants admitted prior art (hereinafter referred to as AAPA, fig. 1; paras 0002-0006).

3. Re Claim 1, AAPA discloses a speaker system providing enhanced intelligibility of a reproduced audio program signal in the presence of ambient noise (*para 0005*) the speaker system comprising: means for receiving the reproduced audio program signal (*fig. 1; Sin; para 0005*); a microphone for monitoring at least ambient noise signals and for providing a microphone output signal (*fig. 1: MIC1; para 0005*); means for enabling the microphone output signal during first increments of time when the reproduced audio program signal is substantially off (*para 0005: process control signal S3 is only provided when program signal S4 is in off state*), and disabling the microphone output signal during second increments of time when the reproduced audio program signal is on (*para 0005: process control signal S3 is only provided when program signal S4 is in off state*), such that the microphone output signal includes ambient noise signal components without including reproduced program signal components (*para 0005: system operates when Sin is below threshold level, if Sin is above threshold level then system will be in ON state which will allow reproduced program signal components*); and a signal processor (*fig. 1; P1*), in communication with the means for receiving and the means for enabling/disabling (*fig. 1: P1, Sin & S3; para 0005*), for applying the first transfer function to the reproduced audio program signal (*fig. 1: f1; para 0005*), incrementally increasing gain adjustments to the reproduced audio program signal as a function of an increasing amplitude of the output signal (*fig. 1; para 0006: varying changes of amplitude due to ambient noise level could be incremental*), incrementally decreasing gain adjustments to the reproduced audio program signal as a function of a

decreasing amplitude of the output signal (*fig. 1; para 0006: varying changes of amplitude due to ambient noise level could be incremental*).

Claim 7 has been analyzed and rejected according to claim 1.

Claim 12 has been analyzed and rejected according to claim 1.

Claim 18 has been analyzed and rejected according to claim 1.

Claim 22 has been analyzed and rejected according to claim 1.

Claim 25 has been analyzed and rejected according to claim 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 13, 19 & 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants admitted prior art (hereinafter referred to as AAPA, fig. 1; paras 0002-0006).

Re Claim 2, AAPA does not disclose the speaker system according to claim 1, wherein the incremental gain adjustments are in steps of between about 1 dB and about 10 dB.

However, such a limitation is the inventor's preference thus it would have been obvious for AAPA to modify the speaker system for the motivation of providing a broad sound range.

Claim 13 has been analyzed and rejected according to claims 1-2.

Claim 19 has been analyzed and rejected according to claim 2.

Claim 26 has been analyzed and rejected according to claims 1-2.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8.

Claims 3, 5, 8, 10, 14, 16, 20-21, 23-24 & 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA, as applied to claim 1 above, in view of Bosnak, US Patent 4,554,533.

Re Claim 3, AAPA discloses the speaker system according to claim 1, but fails to disclose further comprising a first amplifier having an input and an output, the first amplifier input coupled to the output signal of the signal processor and the first amplifier output coupled to input of a first speaker. However, Bosnak does (*Bosnak, fig. 1: 20, 14'*). It would have been obvious to modify the system of AAPA with an amplifier connection as taught in Bosnak (*Bosnak, fig. 1: 20, 14'*) for the purpose of producing higher levels of sound.

Re Claim 5, AAPA and Bosnak disclose the speaker system according to claim 3, further comprising: a low-pass filter having an input and an output (*Bosnak, fig. 1: 52*), the filter input coupled to the signal process output signal of the signal process and the filter output augmenting the first speaker output in a low frequency region (*Bosnak, fig. 1: 20, 52*); and a second amplifier having an input and output (*Bosnak, fig. 1: 14*), the first amplifier input coupled to the filter output and the first amplifier output coupled to a second speaker input of a second speaker (*Bosnak, fig. 1: 14, 10*).

Claim 8 has been analyzed and rejected according to claim 3.

Claim 10 has been analyzed and rejected according to claim 5.

Claim 14 has been analyzed and rejected according to claim 3.

Claim 16 has been analyzed and rejected according to claim 5.

Claim 20 has been analyzed and rejected according to claim 3.

Claim 21 has been analyzed and rejected according to claim 5.

Claim 23 has been analyzed and rejected according to claim 3.

Claim 24 has been analyzed and rejected according to claim 5.

Claim 27 has been analyzed and rejected according to claim 3.

Claim 28 has been analyzed and rejected according to claim 5.

Claims 4, 6, 9, 11, 15 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Bosnak, US Patent 4,554,533 as applied to claim 3 above, and in further view of Tanaka et al, US Patent 5,588,065.

Re Claim 4, the combined teachings of AAPA and Bosnak disclose the speaker system according to claim 3, but fail to disclose wherein the first speaker comprises a single speaker driver having a diaphragm diameter not greater than about 100 centimeters (cm). However, Tanaka et al does (*Tanaka et al, col. 11, lines 52-67*). It would have been obvious to incorporate the speaker of Tanaka et al (*Tanaka et al, col. 11, lines 52-67*) into the speaker system of AAPA and Bosnak for the purpose of providing direct but incremental amplitude compensation.

Claim 6 has been analyzed and rejected according to claim 4.

Claim 9 has been analyzed and rejected according to claim 4.

Claim 11 has been analyzed and rejected according to claim 4.

Claim 15 has been analyzed and rejected according to claim 4.

Claim 17 has been analyzed and rejected according to claim 4.

Contact

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE C. MONIKANG whose telephone number is (571)270-1190. The examiner can normally be reached on M-F. alt Fri. Off 7:30am-5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George C Monikang/ 12/2/2009
Examiner, Art Unit 2614

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2614